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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re The Application of:)
Andrew Sutherland et al.)

Serial No.: 10/075,710)

Examiner: Eataille, P.

Filed: February 14, 2002)

Art Unit: 2186

For: PEER-TO-PEER ENTERPRISE)
STORAGE)

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July 25, 2005

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Commissioner for Patents
P.O. Box 1450
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Sir:

RESPONSE

We have carefully considered the Office Action dated April 21, 2005, in which allowable subject matter is found in claims 3-18 and 22-36 and the remaining claims are rejected as obvious over a combination of United States Patent Application Publication 2002/005989 to Stringer-Calvert et al and an article by Kangasharju et al entitled "A Replicated Architecture for the Domain Name System."

The current invention is a distributed network storage system that includes a plurality of file storage nodes that communicate peer-to-peer over a network. The current system further includes a storage coordinator that manages file storage on the plurality of file storage nodes. The storage coordinator designates selected groups of nodes within the plurality of nodes as replication groups and directs the nodes selected for a given

group to communicate peer-to-peer to replicate associated group files. The storage coordinator thus centrally manages distributed storage resources.

In contrast, the Stringer-Calvert system is a system for providing VPNs, which may “utilize” peer-to-peer networks, that is may be overlaid on peer-to-peer networks. See, para. 0047; also para. 0011. The Stringer-Calvert system is thus not a system for managing distributed storage resources. The Stringer-Calvert system includes multiple master nodes that control membership in subsets of a collaborative group and “enables distribution of the management burden” among the multiple master nodes. See, Abstract; also para. 0005; para. 0008; and paras. 0024 and 0033 which are included in the section of the application entitled “Distributed Management in a Super-VPN, with Dynamic Group Membership.” Indeed, the respective master nodes of the Stringer-Calvert system preferably control membership in the VPN of their subsets of members. See, Abstract; para. 0008.

Accordingly, the Stringer-Calvert system does not include a storage coordinator that centrally manages distributed storage resources, and in particular, a storage coordinator that **designates selected groups of nodes within the plurality of nodes**. Rather, the Stringer-Calvert references teaches away from utilizing such a storage coordinator by teaching the use of multiple master nodes to manage the memberships of respective subsets of nodes.

The Examiner cites the fault tolerance of the Stringer-Calvert system as implying the replication of group files. However, the fault tolerance referred to in the Stringer-Calvert reference is fault tolerance for the VPN, which is accomplished by providing multiple network paths to the various nodes. See, para. 0046.

The Examiner cites the Kangasharju article as adding to the teachings of Stringer-Calvert the replication of associated group files. However, the Kangasharju article describes a replicated architecture that is designed to promote a philosophy of “local administration, global availability.” Page 661. Each replicated nameserver in the Kangasharju system contains an entire up-to-date database of interest, namely, the entire DNS database, and thus makes information relating to particular local “zones” available across the network at every replicated nameserver.

The Kangasharju system includes primary nameservers that contain database information for their respective zones. The replicated nameservers receive updated database information from the respective primary nameservers that they parent, and provide the updated information to the entire network of replicated nameservers. See, Fig. 2 and discussion thereon on page 662. The network of the replicated nameservers is thus the only group in which files are replicated, and there is no teaching or suggestion of a storage coordinator that centrally manages distributed storage resources by directing file replication within designated groups, that is, groups of nodes that are selectively designated by the storage coordinator.

The teachings of the Kangasharju reference do not add to the Stringer-Culver system the storage coordinator of the current invention, and thus, the combination does not teach or suggest a system or method of operation that includes a storage coordinator that **selectively designates groups of nodes within the plurality of storage nodes and directs the nodes in a given group to communicate peer-to-peer to replicate the associated group files**, as set forth in independent claims 1 and 20 and the claims that depend therefrom.

In light of the above, we request that the Examiner reconsider the rejections and issue a Notice of Allowance for all pending claims.

Please charge any fee occasioned by this paper to our Deposit Account
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Respectfully submitted,



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